

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
18 August 2005 (18.08.2005)

PCT

(10) International Publication Number
WO 2005/076611 A1

(51) International Patent Classification⁷: **H04N 7/01**, 7/26

(74) Agents: **VOLMER, Georg** et al.; Philips Intellectual Property & Standards GmbH, Weisshausstr. 2, 52066 Aachen (DE).

(21) International Application Number:
PCT/IB2004/052860

(22) International Filing Date:
20 December 2004 (20.12.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
04100052.2 9 January 2004 (09.01.2004) EP

(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(71) Applicant (*for DE only*): **PHILIPS INTELLECTUAL PROPERTY & STANDARDS GMBH** [DE/DE]; Stein-damm 94, 20099 Hamburg (DE).

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(71) Applicant (*for all designated States except DE, US*): **KONINKLIJKE PHILIPS ELECTRONICS N. V.** [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

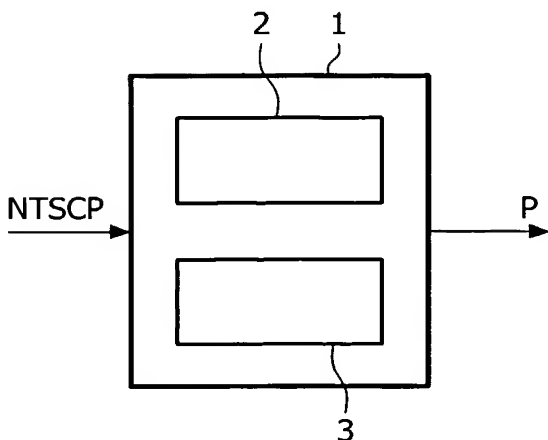
Published:
— *with international search report*

(72) Inventor; and

(75) Inventor/Applicant (*for US only*): **SEUPEL, Olaf** [DE/DE]; c/o Philips Intellectual Property & Standards GmbH, Weisshausstr. 2, 52066 Aachen (DE).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: ARRANGEMENT FOR GENERATING A 3:2 PULL-DOWN SWITCH-OFF SIGNAL FOR A VIDEO COMPRESSION ENCODER



(57) Abstract: Arrangement for generating a pull-down switch-off signal The invention relates to an arrangement (1) for generating a pulldown switch-off signal for a video compression encoder, which signal is determined by the arrangement (1) in dependence on a converted signal which is produced from an NTSC signal by means of an inverse 3:2 pull down conversion, wherein the circuit arrangement includes a M(ean) A(bolute) D(istortion) (MAD) detector (2) and a circuit (3) for determining Hadamard coefficients, wherein the MAD detector (2) produces a MAD signal which indicates for each block of predefined size the difference between the picture contents of two consecutive frames, wherein the circuit (3) for determining the Hadamard coefficients delivers two coefficients in blocks per frame, from which coefficients a first coefficient indicates the sum of the differences of the pixels of adjacent scanning lines i and $i+1$ and a second coefficient indicates the sum of the differences of the pixels of scanning lines i and $i+2$, and

wherein the pull-down switch-off signal is generated in dependence on the summed values of the MAD signal for all blocks of a frame and in dependence on the two Hadamard coefficients summed for all the blocks of a frame.

WO 2005/076611 A1